

## CLAIMS

1. Process for the production of a casing (1) with protective bellows (2, 2A) for a transmission device, such as a transmission joint, comprising at least two shafts movable axially and/or angularly relative to each other, this casing (1) with bellows (2, 2A), of which at least a portion of the bellows (2) is radial, having at each open end a section (3A, 3B) for securement to the transmission device,

characterized in that it consists in molding the casing (1) with bellows (2, 2A), with a hollow mold (5) and at least one core (4), each having at least one complementary helicoidal screw thread delimiting the molding space, and in demolding the formed casing (1) by relative unscrewing of the casing (1) and the core (4) so as to obtain a single-piece casing.

2. Process for production of a casing (1) with protective bellows (2, 2A) according to claim 1,

characterized in that the casing (1) is injection molded from a thermoplastic or a thermoplastic elastomer.

3. Process for production of a casing (1) with protective bellows (2, 2A) according to one of claims 1 and 2,

characterized in that the largest cross-section of the core or cores (4) is arranged have a diameter less than or equal to the passage section of the securement section (3A) of largest dimension of the casing (1) with bellows (2, 2A).

4. Process for the production of a casing (1) with protective bellows (2, 2A) according to one of claims 1 to 3,

characterized in that there is given to the core or  
5 cores (4) and to the body of the mold (5) a truncated conical shape.

5. Process for the production of a casing (1) with protective bellows (2, 2A) according to one of claims 1 to  
10 4,

characterized in that the casing (1) is molded with at least two cores (4) each having a helicoidal screw thread of different pitch, preferably increasing in the direction of the portion of the core adapted to extend to adjacent  
15 the securement section (3A) of largest size of the casing (1).

6. Casing (1) with protective bellows (2, 2A) of a transmission device, such as a transmission joint,  
20 comprising at least two shafts movable axially and/or angularly relative to each other, this casing with bellows, of which at least one portion of the bellows is radial, having at each open end a section (3A, 3B) for securement to the transmission device, said casing (1) being obtained  
25 particularly by the practice of the process according to claims 1 to 5,

characterized in that it is in the form of a single-piece body free from an internal axial joint plane, at least one portion of the bellows (2) being of helicoidal  
30 arrangement, the securement section (3A) of largest size having a passage section greater than or equal to the diameter delimited by the summit of the largest bellows.

7. Casing (1) with bellows (2, 2A) for protecting a transmission device according to claim 6,

characterized in that the radial bellows (2) are  
5 constituted by single or multiple spiral passages.

8. Casing (1) with bellows (2, 2A) for protecting a transmission device according to any one of claims 6 and 7,

characterized in that the bellows (2, 2A) are of  
10 identical diameter for the production of a cylindrical casing.

9. Casing (1) with bellows (2, 2A) for the protection of a transmission device according to any one of claims 6

15 and 7,

characterized in that the bellows (2) are of progressive diameter inscribed within a truncated cone.

10. Casing (1) with bellows (2, 2A) for the protection  
20 of a transmission device according to any one of claims 6 to 9,

characterized in that the tubular body of the casing is delimited over at least a portion of its length by an undulant or folded wall, each fold corresponding to a  
25 bellows, the folds describing a helix of constant or variable pitch, preferably increasing in the direction of the securement section (3A) of largest size of the casing.

11. Casing (1) with bellows (2, 2A) for the protection  
30 of a transmission device according to one of claims 6, 7 and 9,

.. ..  
characterized in that the casing (1) comprises axial bellows (2A) and radial bellows (2).

12. Casing (1) with bellows (2, 2A) for the protection  
5 of a transmission device according to one of claims 6 to 11,

characterized in that each securement section (3A, 3B) of the casing (1) is constituted by at least two bi-injected materials.